



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/727,667

12/01/2000

Thomas R. Colligan

16356.567 (DC-02601)

2026

27683

7590

06/13/2006

HAYNES AND BOONE, LLP
901 MAIN STREET, SUITE 3100
DALLAS, TX 75202

EXAMINER

CHUONG, TRUC T

ART UNIT

PAPER NUMBER

2179

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/727,667	Applicant(s) COLLIGAN ET AL.	
	Examiner Truc T. Chuong	Art Unit 2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10,12-18,20-24 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-10, 12-18, 20-24, and 30-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to the Amendment, filed 03/16/06.

Claims 1-2, 4-10, 12-18, 20-24, and 30-36 are pending in this application. Claims 1, 9, 17, 30, 31, and 32 are independent claims. In the communication, claims 30 and 31 are amended, claims 3, 11, 19, and 25-29 were previously cancelled, and claims 32-36 are new claims. This action is made final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Claim Rejections - 35 USC § 103

1. Claims 1-2, 4-10, 12-18, 20-24, and 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singer et al. (U.S. Patent No. 6,314,473 B1) in view of Funches et al. (U.S. Patent No. 5,305,160), and further in view of Stancil et al. (U.S. Patent No. 6,601,168 B1).

As to claims 1, 17, and 30-31, Singer teaches a method of providing acoustic management in a computer comprising:

receiving from a user instructions regarding a selected acoustic level via an interface (e.g., col. 6 lines 33-45, and figs. 4-8);

using an acoustic level bar and a computer input device for selecting a desired acoustic level (e.g., col. 6 line 33-col. 7 line 15, and figs. 4-8);

Singer teaches a percentage of a maximum possible acoustic level, the acoustic level selected (e.g., col. 6 line 33-col. 7 line 15, and figs. 4-8); however Singer does not

teach a dial to indicate the levels. It is well known and would have been obvious to modify a digital level indicator to an analog dial indicator or vice versa to improve the visualization when working on different screen layouts;

Singer teaches adjusting an operational level of at least one subsystem of the computer to achieve the selected acoustic level (e.g., col. 3 line 65-col. 4 line 13, col. 6 line 33-col. 7 line 15, and figs. 4-8); and Singer also teaches a current system setting of a hard disk drive (or media drive) in the computer, the hard disk drive including a plurality of preset seek profiles, each having a known acoustic level (Preview mode may also be pre-set to execute automatically each time the GUI settings are altered, e.g., col. 8 lines 43-46 and fig. 4, it means the preview mode is pre-set to a certain level (threshold) on each disk drive based on the user previously defined, and the pre-set level will be saved/stored in the computer memory as the preset data file (profile) to be automatically run to compare the preset data and the current data each time the values in the computer system are changed); and Singer teaches making corresponding adjustments by at least one power management system in the computer (e.g., col. 7 line 62-col. 8 line 8, and figs. 4-8), the system setting determining a power management level (Singer teaches the power consumption and power management level of the computer system can be adjusted via a controller, e.g., col. 7 line 62-col. 8 line 8, and figs. 4-8); and Singer also teaches that the user can maintain a thermal profile manageable by the cooling subsystem operating at the selected operational level (the power-saving mode is set up by a predetermined numbers/functions for the disk drive and power consumption, e.g., col. 7 lines 50-60, and fig. 4).

however, the modified Singer does not teach performing a pre-test to determine current hard disk drive seek settings and current system settings. Funches clearly teaches pre-test a disk drive to determine the actual performance of each zone in a RAM (e.g., col. 9 lines 54-67), and calibration routine is initiated by a system microprocessor whenever the computer is turned on (e.g., col. 10 lines 1-15). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have the pre-test and the calibration to the current system and the hard drive of Funches to the acoustic level control of Singer to allow an operator to easily control, adjust, and monitor the performance of a computer system;

although, the management system of Singer in view of Funches the pre-test to determine current hard disk drive seek settings and current system settings, the system still does not clearly mention performing a post-test to determine if further adjustment is desired. Stancil clearly teaches of changing/adjusting the speed of a device by constantly monitoring an audio noise and temperature of the system (Stancil, Abstract, col. 4 line 44-col. 5 line 3). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have the post-testing or monitoring the system of Stancil to the modified system of Singer in view of Funches to reduce the audible noise and power consumption in a computer system (Stancil, col. 1 lines 50-53, and col. 2 lines 8-9).

As to dependent claims 2 and 18, Singer teaches the method of claim 1 further comprising:

subsequent to the adjusting, demonstrating to the user the selected acoustic level (e.g., col. 8 lines 1-20).

As to dependent claims 8 and 24, Singer teaches prior to the receiving, displaying a graphical user interface for enabling the user to select an acoustic level (e.g., col. 3 line 65-col. 4 line 13, col. 6 line 33-col. 7 line 15, and figs. 4-8).

As to claims 9-10, they are the equivalent system claims of method claims 1-2 respectively and are rejected under a similar rationale.

As to claim 16, it is the equivalent system claim of method claim 8 and is rejected under a similar rationale.

As to dependent claims 4 and 20, the modified Singer teaches the adjusting an operational level of at least one subsystem or build-in components of the computer (note the rejection of claim 1 above); however, Singer does not clearly teach adjusting the speed of an internal fan of the computer system. Stancil clearly shows adjusting the speed of fans in the computer system (Stancil, e.g., col. 4 line 44-col. 5 line 3).

As to dependent claims 5 and 21, modified Singer in view of Stancil teaches the adjusting an operational level of at least one subsystem of the computer comprises making corresponding adjustments to overall operation of a portion of the computer to maintain a heat production level of the computer at a level that can be managed by the internal fan operating at the adjusted speed (Stancil, e.g., col. 4 line 44-col. 5 line 3).

As to dependent claims 6 and 22, modified Singer in view of Stancil teaches the adjusting an operational level of at least one subsystem of the computer is performed using redefined power management levels of the computer (Singer teaches the power consumption and power management level of the computer system can be adjusted via a controller, e.g., col. 7 line 62-col. 8 line 8, and figs. 4-8).

As to dependent claims 7 and 23, modified Singer in view of Stancil teaches the adjusting an operational level of at least one subsystem of the computer comprises adjusting a speed of a peripheral bus, with corresponding adjustments to a speed of at least one peripheral device connected to the peripheral bus (Stancil clearly teaches of changing/adjusting the speed of a device by constantly monitoring an audio noise and temperature of the system, e.g., Abstract, col. 4 line 44-col. 5 line 3).

As to claims 12-15, they are the equivalent system claims of method claims 4-7 respectively and are rejected under a similar rationale.

As to claims 32-33, they can be rejected under a similar rationale as claims 1 and 4. Note the rejections of claims 1 and 4 above respectively.

As to claim 34, the modified system does not clearly teach the ability to control the processor fan as claimed; however, it is well known or would have been obvious to apply the similar concept of the system fan, as explained above, to reduce the audible noise and power consumption in a computer system.

As to claim 35, it can be rejected under a similar rationale as claim 8. Note the rejection of claim 8 above.

As to claim 36, the modified system teaches the method further comprising a seek time of the hard disk drive of the computer (Singer, e.g., figs. 3-5).

Response to Arguments

2. Applicant's arguments filed 03/16/06 have been fully considered but they are not persuasive.

Applicants have argued and Examiner disagrees with the following reasons:

- a. *There is no teaching of power management system making adjustments corresponding to adjustments made in seek time to achieve a selected acoustic level.*

Singer clearly teaches that the system can be automatically or manually setup/adjusted the power consumption, hard drive speed, cooling fan, etc., to coordinate the setup to max the performance and min the cost of power consumption in order to help the user to feel more comfortable in long hours of using the system with less noise from the system hardware (e.g., col. 7 line 62-col. 8 line 8, and figs. 4-8).

- b. *There is no teaching of fan control system to control temperature (not audio level), and peripheral bus.*

Stancil clearly teaches that the system detects and controls both audio noise level and the current temperature of the system (Stancil, e.g., abstract). The system of Stancil will adjust the fan speeds corresponding to the temperature of the computer system (Stancil, e.g., col. 5 lines 24-39). Stancil also teaches the system management bus (e.g., col. 4 lines 43-66, and Singer also teaches the user can setups/adjusts the power consumption, seek time speed (data process/transfer), hard drive speed, cooling fan, etc., to coordinate the setup to max the performance and min the cost of power consumption in order to help the user to feel more comfortable in long hours of using the system with less noise from the system hardware (e.g., col. 7 line 62-col. 8 line 8, and figs. 4-8).

c. *The Examiner combines the references with defective in establishing a prima facie case of obviousness, and the Examiner does not show any suggestion, incentive or motivation to combine.*

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971); and in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Singer, Funches, Chari, and Stancil are in the same computer hardware field, which mainly deals with the power consumption, hard drive speed, cooling fan, etc., to coordinate the setup how to max the performance and min the cost of power consumption in order to help the

Art Unit: 2179

user to feel more comfortable in long hours of using the system with less noise from the system hardware.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T. Chuong whose telephone number is 571-272-4134. The examiner can normally be reached on M-Th and alternate Fridays 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2179

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Truc T. Chuong

06/07/06

BA HUYNH
PRIMARY EXAMINER